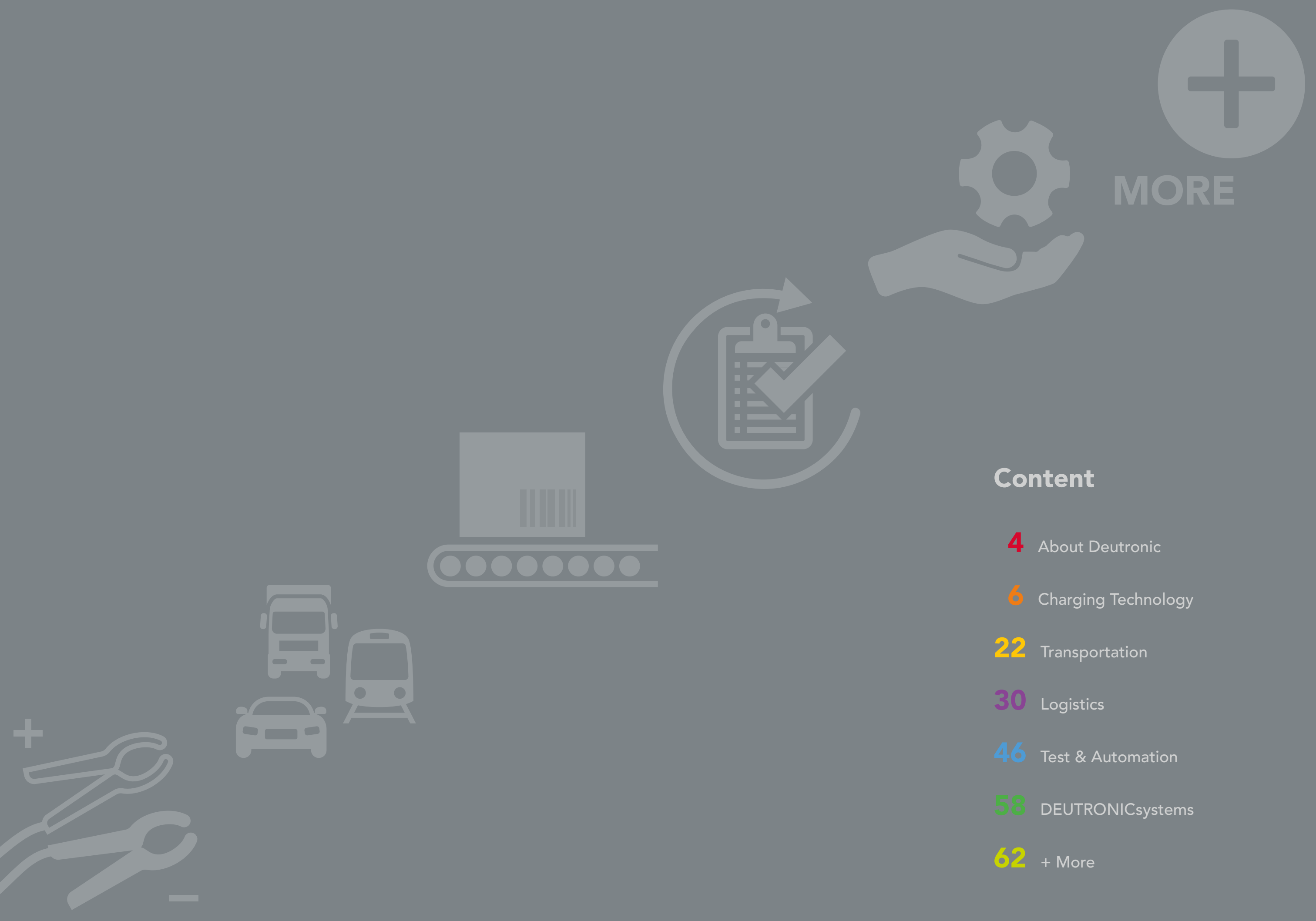


## Power .....





MORE

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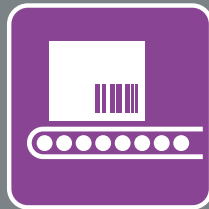
# Power electronics for



Charging Technology



Transportation



Logistics



Test & Automation



DEUTRONICsystems



+ MORE

The demands on today's electronics are various. Talk to us about it.

***We master your challenges.  
Your success is our drive.***

## Deutronic – Manufacturer of your Power electronics



***A very warm welcome to the world of Deutronic!***

**As a globally established partner to industry, Deutronic develops and manufactures intelligent power electronics and test systems of the highest quality.**

The particular strength of the owner-managed family business lies in the realization of application-specific special devices and customized solutions also for smaller quantities.

Deutronic was founded in 1983 in Adlkofen near Landshut / Lower Bavaria. Now in its second generation, the family-run company is 100 %

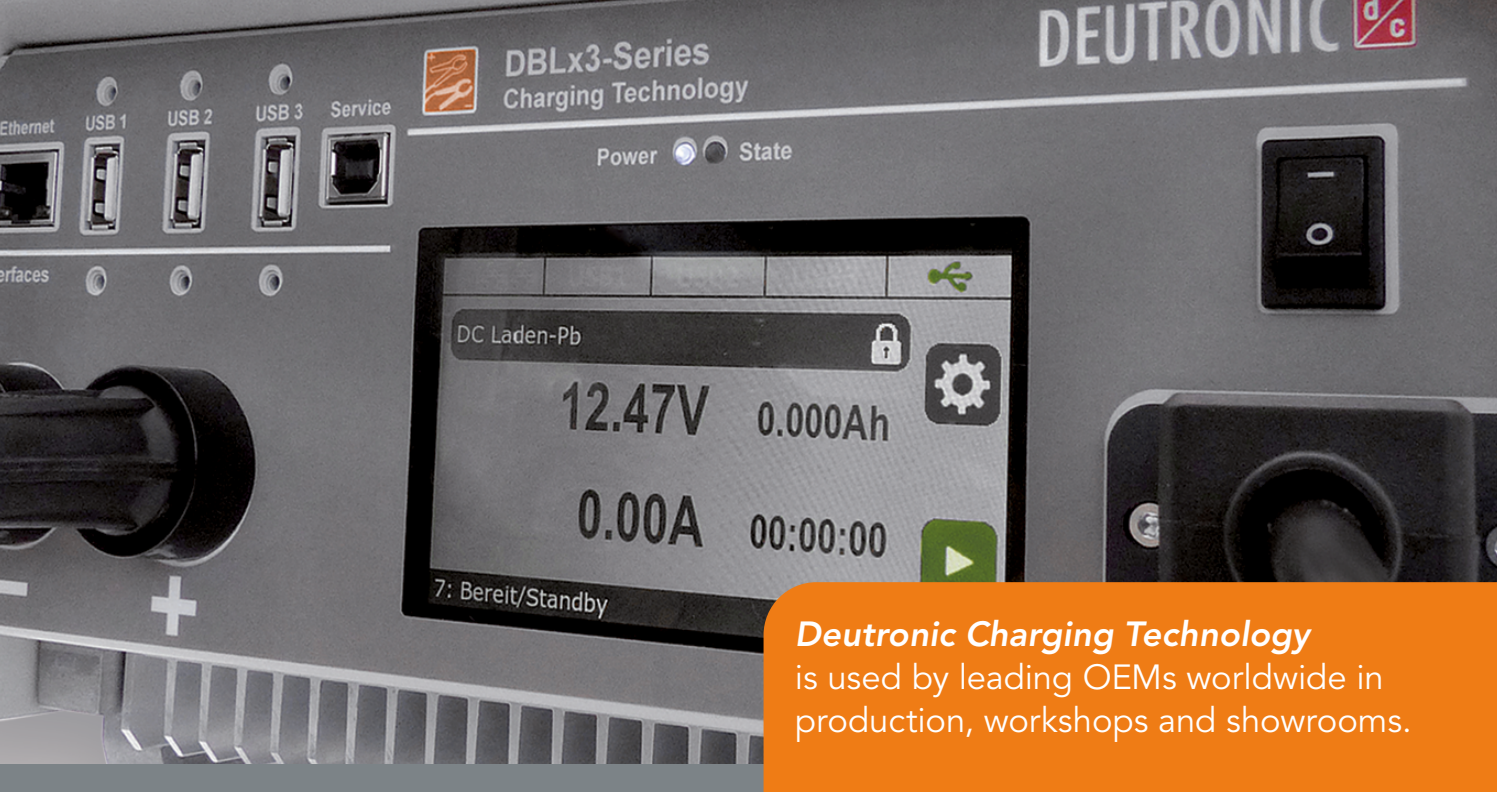
family-owned. True to the company motto "Power + More", Deutronic offers its customers innovative complete solutions with added value.

Other Deutronic locations are in the Czech Republic (Cicenice), the USA (Spartanburg) and in China (Shenzhen).

A qualified, worldwide service network takes care of maintenance, repair, exchange of products, of the delivery of spare parts as well as of the commissioning of systems.

Of course, we are available to you at any time. Please feel free to contact us regarding customized individual solutions.





### ***We charge you up!***

Modern vehicles include multiple electrical and electronical components. Many onboard networks possess more than 100 control devices that must be powered.

These highly complex and sensitive onboard networks, combined with high currents, have a wide range of requirements for charging technology to meet.

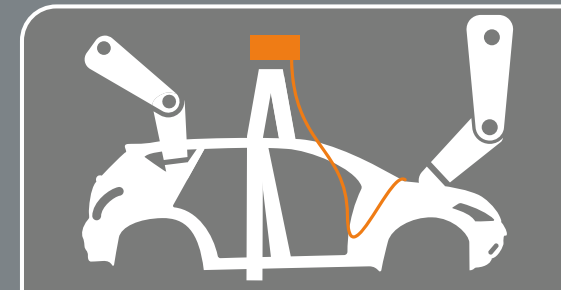
As technology and market leader in automotive charging technology, Deutronic is the manufacturer worldwide who masters this demanding task even under adverse circumstances, e.g. in vehicle production.

Hardware and software are optimally and individually adjusted to the respective application and guarantee highest security and reliability.

Deutronic charging computers have proven their worth a thousand times and thus have been in use by leading OEMs worldwide for decades.

An absolute interconnectivity with our "DC-Connect" offers a multitude of possibilities: From real time monitoring or remote control to the downstream analysis and processing of all saved data. This means that the applications are almost limitless.

## **Charging Technology**



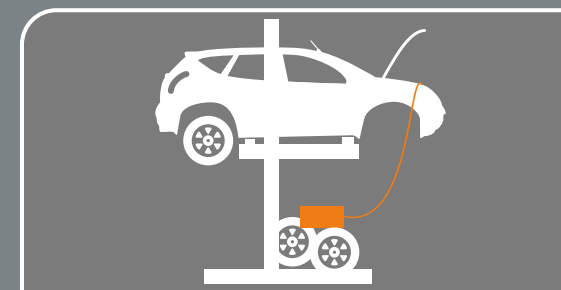
### ***Assembly line***

Our robust and powerful charging computers are conceived and developed specifically for the needs and processes in automotive assembly. Even in the early production phase, the on-board network is supplied reliably and powerfully without a battery.



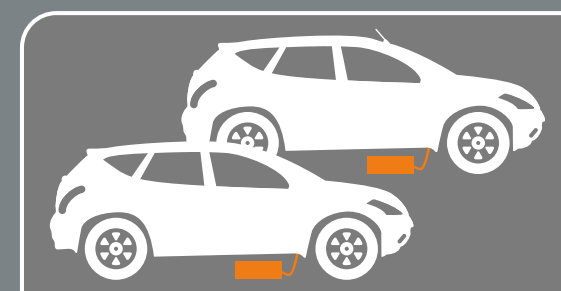
### ***Final assembly***

In the final assembly our charging computers guarantee fully charged batteries and 100 % safety for employees and on-board electronics.



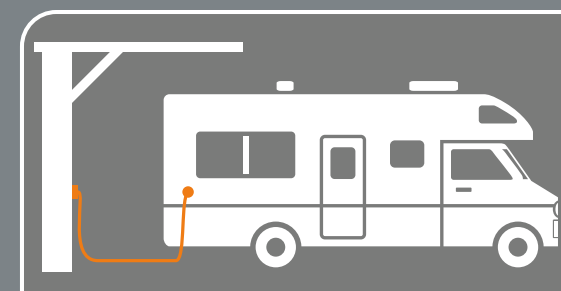
### ***Workshop***

We provide a wide product range, which is ergonomically and technologically specifically designed for the harsh conditions in the workshop. Our powerful, robust and durable products make us the preferred choice of professionals worldwide.



### ***Showroom***

Our battery charging computers for showrooms are discretely placed under the vehicle and enable the permanent use of light and entertainment systems for demonstration purposes.



### ***Trickle charging***

The Batteries of cars, boats, campers and motorcycles often need special attention and care because of long standing times or hibernation. In this area, Deutronic also sets standards for gentle, adaptive charging processes as well as automatic detection of different battery chemistries.





The DBL series stands for powerful charging computers for the industrial use in the production line, for rework stations as well as in car workshops.

Technical data

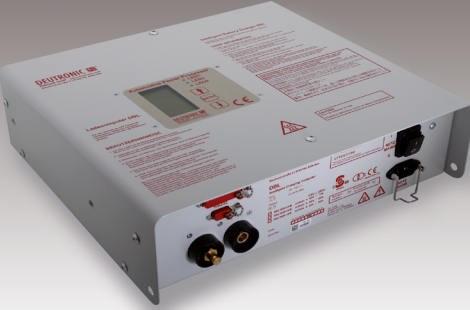
Type	Input voltage	Output voltage	Max. output current	Art.-No.
DBL800-58-M	100–240VAC	max. 58VDC	11A/14A Boost	107088/x/yyy*
DBL1200-14	100–240VAC	14,4/13,2VDC	80A/90A Boost	107073/x/yyy*
DBL1200-14-B	100–240VAC	14,4/13,2VDC	80A/90A Boost	107075/x/yyy*
DBL1200-28	100–240VAC	28,8/26,4VDC	40A/45A Boost	107074/x/yyy*
DBL1200-28-B	100–240VAC	28,8/26,4VDC	40A/45A Boost	107098/x/yyy*
DBL1600-14	100–240VAC	14,4/13,2VDC	90A/105A Boost	107063/x/yyy*
DBL1600-14-B	100–240VAC	14,4/13,2VDC	90A/105A Boost	107068/x/yyy*
DBL1200/3W-14-B-HAN	3AC 380–500VAC	14,4/13,8VDC	80A/90A Boost	107200/x/yyy*
DBL1600/3W-14-B-HAN	3AC 380–500VAC	14,4/13,8VDC	90A/105A Boost	107201/x/yyy*
DBL1800/3W-14-B-HAN	3AC 380–500VAC	14,4/13,8VDC	100A/120A Boost	107077/x/yyy*
DBL2250/3W-14-HAN	3AC 400VAC	14,4/13,8VDC	100A/150A Boost	107229/x/yyy*
DBL3000/3W-14-HAN	3AC 400VAC	14,4/13,8VDC	150A/200A Boost	107228/x/yyy*

\* x Accessory variant  
 y Setting (Standard setting or customized)

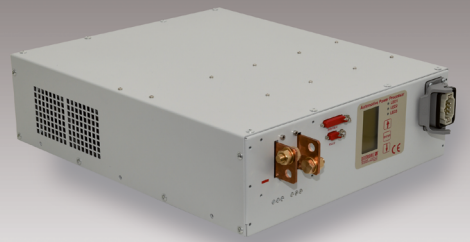
DBL1200/1600 Standard



DBL-B-Version



DBL2250/3W-14-HAN



- ✓ Pb / Li charging modes, suitable for all types of 12V lithium (LiFePO<sub>4</sub>) and lead-based (wet chemical, Ca/Ca, AGM, EFB, GEL) batteries
- ✓ Modes:
  - AutoMode: Automatic detection external power supply, charging
  - AutoDetect: Automatic Pb/Li-detection
  - Cable compensation
  - PowerUp: Mode to connect deeply discharged LiFePO<sub>4</sub> batteries again
  - HoldAndBuffer: Takeover of the charging components with parallel supply e.g. DC/DC converter in the vehicle
- ✓ Quality and reliability based on decades of experience
  - 100 % safe for on-board electronics and airbags
  - Extensive protection for device, vehicle and employees
  - Extremely durable design with fanless housing
- ✓ Individualization and flexibility
  - Customer-specific software and charging parameters
  - Interconnectivity with DC Connect



As a further development of the proven DBL series, the new generation of chargers makes the transition to smart use in manufacturing plants or workshops.

The innovative DBLx3 production and workshop chargers offer the additional added value required with regard to Industry 4.0 and smart networking.

### Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DBL1903-14	100–240VAC	14,4/14,0VDC	100A/120A Boost	107241/x/yyy
DBL1903-14	100–240VAC	14,4/14,0VDC	120A	107244/x/yyy
DBL1603-14	100–240VAC	14,4/14,0VDC	90A/105A Boost	107242/x/yyy
DBL1303-14	100–240VAC	14,4/14,0VDC	80A/90A Boost	107243/x/yyy
DBL1903-14-B-HAN	100–240VAC	14,4/14,0VDC	100A/120A Boost	107245/0/yyy
DBL1903-14-B-HAN	100–240VAC	14,4/14,0VDC	120A	107246/0/yyy
DBL1603-14-B-HAN	100–240VAC	14,4/14,0VDC	90A/105A Boost	107247/0/yyy
DBL1303-14-B-HAN	100–240VAC	14,4/14,0VDC	80A/90A Boost	107248/0/yyy
DBL2253/3W	400–480VAC	14,4/14,0VDC	150A	107265/0/yyy
DBL2253/3W	400–480VAC	14,4/14,0VDC	100A/150A Boost	107260/0/yyy
DBL1903/3W	400–480VAC	14,4/14,0VDC	120A	107261/0/yyy
DBL1903/3W	400–480VAC	14,4/14,0VDC	100A/120A Boost	107264/0/yyy
DBL1603/3W	400–480VAC	14,4/14,0VDC	90A/105A Boost	107262/0/yyy
DBL1303/3W	400–480VAC	14,4/14,0VDC	80A/90A Boost	107263/0/yyy

**DBLx3-14**



**DBLx3-14-B-HAN**  
**DBLx3/3W-14-B-HAN**



- ✓ High level of user-friendliness thanks to commissioning wizard and choice of 21 languages
- ✓ Smart and safe charging or supplying up to 120A through automatic selection between charging and FSV
- ✓ Suitable for lead-acid, gel, AGM, fleece and lithium-ion batteries
- ✓ Clear selection menu for various charging programs: Pb charging, Li charging, FSV mode, PowerUp function as well as long-term charging programs for Pb/Li
- ✓ Precise load detection guarantees that the charger is switched on even at the lowest loads
- ✓ For industrial manufacturing use on the production line, for rework stations as well as for use in the workshop area
- ✓ Great flexibility in application due to the possibility of configuring additional customer-specific charging programs with individual parameterization
- ✓ Wide range input 100–240VAC and permanent output current 120A at 1900W
- ✓ The “automatic battery detection” function is offered as a customer-specific solution
- ✓ Short circuit and reverse polarity protection
- ✓ Protection against defective batteries
- ✓ Reliable sparking suppression
- ✓ Option: Customized charging parameters
- ✓ Utilized and approved by well known automotive manufacturers



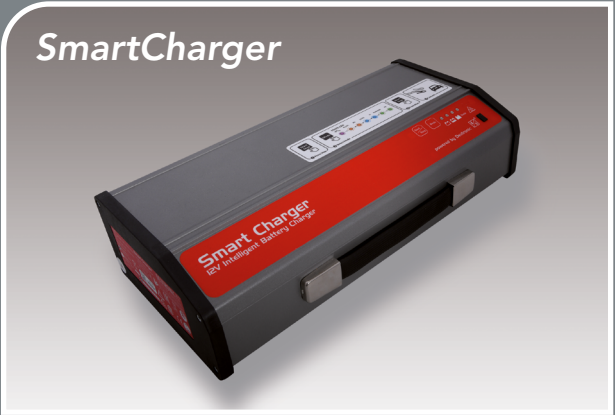
The SmartCharger series was especially designed for charging and monitoring lithium (LiFePO<sub>4</sub>) and lead-based 12V batteries.

The series stands for robust battery chargers with adaptive charging and monitoring algorithms especially for the use in car workshops and showrooms.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
SC300-14	100–240VAC	14,4/14,0VDC	20A	107143/20/000
SC500-14	100–240VAC	14,4/14,0VDC	35A	107142/20/000
SC750-14	100–240VAC	14,4/14,0VDC	50A	107146/x/yyy*

\* x Accessory variant  
y Setting (Standard setting or customized)



- ✓ For all types of 12V lithium (LiFePO<sub>4</sub>) and lead-based (wet chemical, Ca/Ca, AGM, EFB, GEL) batteries
- ✓ Modes:
  - AutoMode: Automatic detection external power supply, charging
  - Cable compensation
  - PowerUp: Mode to connect deeply discharged LiFePO<sub>4</sub> batteries again
  - HoldAndBuffer: Takeover of the charging components with parallel supply e.g. DC/DC converter in the vehicle)
  - LTC: Automatic switching between charging, power supply and buffer
- ✓ Visually discreet
  - Very flat design and extra small charging clamps
  - Adapter plug as breakaway coupling and for easy passage through the engine compartment
- ✓ Quality and reliability based on decades of experience
  - 100 % safe for on-board electronics and airbags
  - Extensive protection for device, vehicle and employees
  - Extremely durable design with fanless housing





The ESM5 is a solar module with an integrated charge controller for maintaining 12VDC rechargeable batteries.

Long lifetimes after production and transport as well as increasing standby-power consumption of new cars often lead to a discharge of the vehicle battery.

The ESM5 Solar-Battery-Maintainer-System prevents a deep discharge of the battery causing a massive increase of the battery lifetime. The current state of charge of the battery is indicated on the front side of the ESM5 at any time via LEDs.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
ESM5		14,2VDC	max. 600mA	



- ✓ Solar module with integrated charge controller for 12VDC Lead / AGM / Lithium / gel based rechargeable batteries
- ✓ Processor controlled charging
- ✓ Robust solar module
- ✓ Aluminium / plastic sandwich carrier plate
- ✓ Only 5 mm thick (without charge controller)





The increasing economic and technical demands on flexibility and reliability rise with the complexity of industrial plants. Due to its retrofittability, the Deutronic D-IBM2900 energy buffer is predestined for use in a wide variety of areas or industries and enables optimization in terms of sustainability thanks to its diverse flexibility and adaptation potential. In addition, it can be used as a backup solution to avoid cycle delays, idle times or downtime in industrial environments. In this way, the use of the product makes a decisive contribution to reducing time, costs and risks – while at the same time increasing performance.

The D-IBM2900 convinces with a capacity of 2900 mAh and can be used mobile as well as stationary. Compatibility with Deutronic DBL three-phase chargers (DBL1200/3W, DBL1600/3W and DBL1800/3W) makes Deutronic your problem solver in the field of decentralized power supply. Ensuring an uninterrupted power supply, it can even be implemented in outdoor areas due to the classification in protection class I and in combination with the corresponding charging trolley Deutronic offers a convenient overall package. Also for customers with the focus on lean management and continuous improvement, the energy buffer is the ideal solution due to its flexibility.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
D-IBM2900-3AC	3x 400VAC	410–550VDC	Max. 5A	107482



- ✓ Ensuring an uninterrupted power supply in the industrial plant area
- ✓ Autonomous battery system with internal BMS (single cell monitoring) and emergency stop
- ✓ Backup solution to avoid delays in the industrial environment
- ✓ Two redundant safety shutdowns
- ✓ Reduced vehicle and manufacturing times
- ✓ Rugged construction meets protection class I requirements



- ✓ Mobile loading unit enables flexible supply in vehicle fleets or rework stations
- ✓ Autonomous battery system with internal BMS (single cell monitoring) and emergency stop
- ✓ Two redundant safety shutdowns
- ✓ LED display for visual indication of remaining energy
- ✓ Use as part of continuous improvement processes or short-term adaptations
- ✓ Compatibility with Deutronic DBL three-phase chargers (DBL1200/3W, DBL1600/3W and DBL1800/3W)



### Transport system (multifunctional)



- ✓ Without accessories
- ✓ Transport system with mounting device for two DBL in B housing and signal lamps
- ✓ Transport system with mounting device for two DBL2250/3W resp. DBL3000/3W and signal lamps
- ✓ Transport system with mounting device for D-IBM2900 energy buffer system as well as two DBL/3W or DBL-B and external signal lamps

### Transport system (without charger)



- ✓ Variant 1: For DBL chargers in standard housing
- ✓ Variant 2: For DBL chargers in B-housing

### External signal lamp



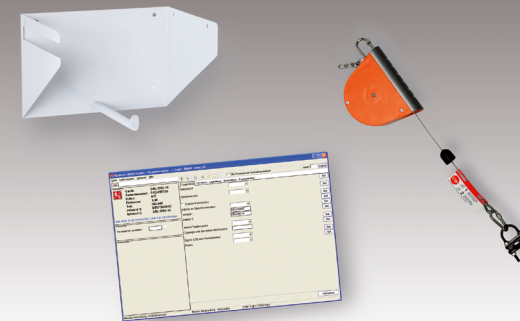
- ✓ External signal lamp for charging computers of the DBL MPC4 and MPC9 series
- ✓ For clear signaling of the charging status on production lines and workshops
- ✓ Available with 0.5 m or 2.5 m cable length
- ✓ Optionally available with or without acoustic signalling

### D-ILA-F10A1



- ✓ Adaptive filter box to meet ILA EMC requirement on DBL devices
- ✓ Retrofittable on existing DBL devices
- ✓ Suitable for DBL1050-14, DBL1200-14 and DBL1600-14

### Various accessories



- ✓ Wallmount
- ✓ Software D-Tool Parameterization tool MPC4
- ✓ Cable spring balancer with locking device

Further information to the accessories **Charging Technology** can be found on our homepage:

[www.deutronic.com](http://www.deutronic.com)





**Deutronic Transportation** offers a wide spectrum of DC/DC converters for the use in harsh environments, electro and hybrid vehicles.

### **Be excited!**

With electrified vehicles, electronic components like high-voltage energy storages, electro motors etc. play an important role. The use of different on-board voltages depending on the grade of electrification of the application and the constantly rising power requirements increase the complexity of the application.

As a partner with tens of years of experience and competence, Deutronic offers a wide spectrum of DC/DC converters for different applications.

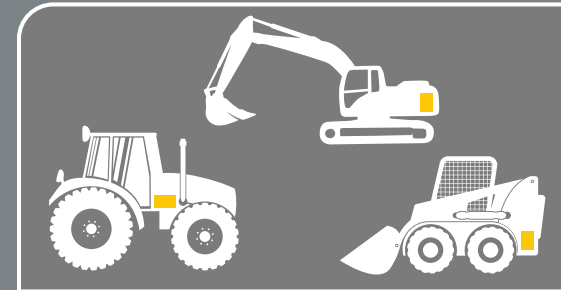
Our latest generation of DC/DC converters features an innovative and compact design combined with high

power density. The converters are controllable via CAN and individually applicable to the communication protocol of the customer's application.

All galvanically isolated and not isolated converters are very robust and perfectly protected against rough environmental influences like vibration, shock, high temperature differences, humidity and aggressive atmosphere.

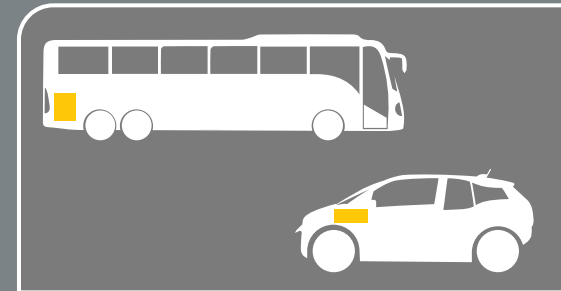
Due to our in-house production, customer-specific changes are possible even for small series.

## Transportation



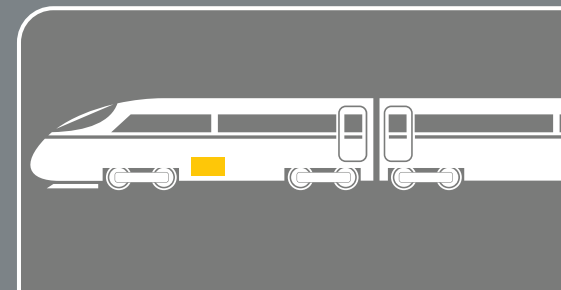
### **Mobile working machines**

Our powerful DC/DC converters are used in different construction machines and agricultural vehicles of different kinds, also in the e-versions.



### **Electro and hybrid vehicles**

For hybrid and electro vehicles electronic components, e.g. HV energy storages, e-machines etc. are significant. Our DVCH converters meet the requirements occurring in a vehicle and also impress with extremely small construction volumes and high efficiency.



### **Railway**

In the highly specialized railway sector, we are able to meet the high requirements and provide the fitting DC/DC converter for our customers.





The DVCH converters meet the requirements occurring in a vehicle and also impress with extremely compact design and very high efficiency.

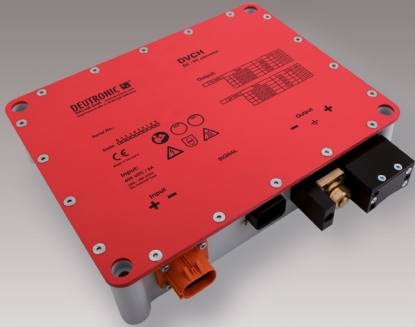
Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DVCH1503-400-12	200–470VDC	2–15VDC	112A	105193/x/yyy*
DVCH1503-400-24	200–470VDC	2–30VDC	56A	105192/x/yyy*
DVCH1503-700-12	400–900VDC	2–15VDC	112A	105195/x/yyy*
DVCH1503-700-24	400–900VDC	2–30VDC	56A	105194/x/yyy*
DVCH3003-400-12	200–470VDC	2–15VDC	224A	105197/x/yyy*
DVCH3003-400-24	200–470VDC	2–30VDC	112A	105196/x/yyy*
DVCH3003-400-48	200–470VDC	4–60VDC	56A	105184/x/yyy*
DVCH3003-700-12	400–900VDC	2–15VDC	224A	105199/x/yyy*
DVCH3003-700-24	400–900VDC	2–30VDC	112A	105198/x/yyy*

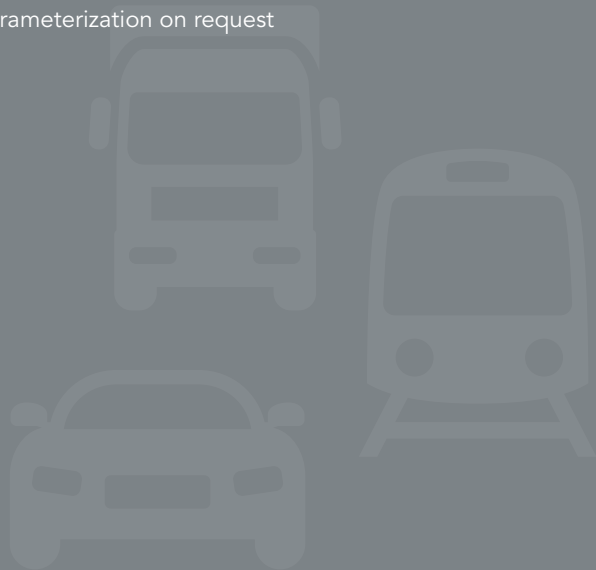
\* Order option:

.../x/...: Accessory variant	.../yyy: Setting (Standard setting or customized)
.../0/... without accessory	.../000 DC-Standard CAN 2.0A
.../20/... with heatsink	.../001 DC-Standard CAN J1939
More on request	Customer-specific parameterization on request

DVCH1503/3003



- ✓ Power range 1500/3000W
- ✓ Available CAN protocols: Standard-CAN and J1939
- ✓ Protection classes IP65, IP67 and IP6K9K
- ✓ Contact cooled, no extensive cooling concept in the vehicle required
- ✓ Customized changes possible through modular design
- ✓ HV connection cable or supplementary heat sinks available as accessories





The latest generation of DC/DC converters for electromobility – also in fuel cell applications – enables a high power density and current carrying capacity with a very flat design using planar components.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DVC153-24/36-12	36VDC	12,5VDC	12A	105173/x/000*
DVC153-48-12	48VDC	12,5VDC	12A	105174/x/000*
DVC153-80-12	80VDC	12,5VDC	12A	105175/x/000*
DVC153-80-13,8	80VDC	13,8VDC	11A	105169/x/000*
DVC453-24/36-24	24–36VDC	24,3VDC	18,5A	105176/0/000*
DVC453-48/80-24	48–80VDC	24,3VDC	18,5A	105177/0/000*
DVC853-48/80-13,8	48–80VDC	13,8VDC	70A Boost 160A (t<=4s)	105214/x/000*
DVC953-48/80-13,8-CAN	48–80VDC	13,8VDC	80A	105167/x/yyy*
DVC1903-24/48-24-CAN	24–48VDC	2–30VDC	80A	105187/x/yyy*
DVC1903-48/80-24	48–80VDC	24,3VDC	70A Boost 160A (t<=4s)	105216/0/000*
DVC1903-48/80-24-CAN	48–80VDC	2–30VDC	80A	105217x/yyy*
DVC2503-96-24-CAN	96VDC	24,3VDC	100A	105220/x/yyy*

\* Order option:  
.../x/...: Accessory variant  
.../0/... without accessory  
.../20/... with heatsink  
More on request  
.../yyy: Setting (Standard setting or customized)  
.../000 DC-Standard CAN 2.0A  
.../001 DC-Standard CAN J1939  
Customer-specific parameterization on request

Especially for rail applications

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DVC75-80-24/RA	80VDC	24,5VDC	3,2A	105048
DVC75-80-24/RA	80VDC	24,5VDC	3,2A	105048/2
DVC150-80-24/RA	80VDC	24VDC	6,5A	105047
DVC251-80-24/RA	80VDC	24VDC	10,5A	105137/1

DVC153/DVC453



- ✓ Wide range input
- ✓ Short-circuit, no load and over temperature protection
- ✓ IP-protection class IP65
- ✓ Parallel connectable
- ✓ Particularly flat and compact design

DVC953



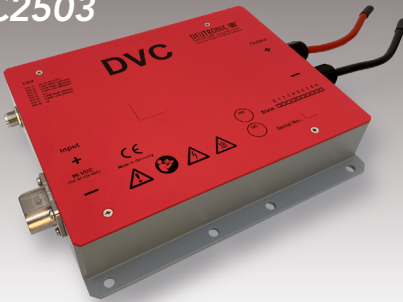
- ✓ Galvanical isolated switching regulator
- ✓ Power range up to 1280W
- ✓ High efficiency – up to – typ. 93%
- ✓ Short-circuit, no load and over temperature protection
- ✓ IP-protection class IP67

DVC853/1903



- ✓ Wide range input
- ✓ Short-circuit, no load and over temperature protection
- ✓ IP-protection class IP54
- ✓ Parallel connectable
- ✓ Particularly flat and compact design

DVC2503



- ✓ Power adaptation possible through modularity in 2.5 kW steps (up to 7.5 kW)
- ✓ Improved handling through master-slave control
- ✓ Coverage of a wide range of applications due to the large input voltage range
- ✓ Desired parameterization via CAN interface (CAN2.0A, J1939)





## Mating connector DVC453-48/80 pre-assembled



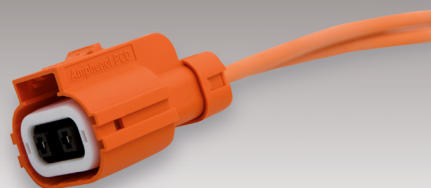
- ✓ For the device type:  
DVC453-48/80-24
- ✓ 3 m cable length
- ✓ Scope of delivery:  
Mating connector TE Connectivity AMP  
and 3 m connection cable

## Mating connector DVC953/DVC2503 pre-assembled



- ✓ For the device types:  
DVC953, DVC2503
- ✓ 2 m cable length
- ✓ Scope of delivery:  
Power Lok connection  
Twin cable Ölflex 2 x 6 mm<sup>2</sup>  
Open cable ends

## HV mating connector DVCHx3 pre-assembled



- ✓ For the device types:  
DVCHx3
- ✓ 5 m cable length
- ✓ Scope of delivery:  
2 pole HV connector AMPHENOL  
Excel Mate Eco HVSL282 06 2 A 104  
HV cable (4 mm<sup>2</sup>, shielded single wires)

## D-ADAPT-CAN USB / CAN-ADAPTER



- ✓ For device types:  
DVCx3, DVCHx3 / Adapter-Kit
- ✓ Scope of delivery:  
1x D-ADAPT-CAN USB / CAN-ADAPTER  
For update of Deutronic series DVCx3  
and DVCHx3 by means of CAN bus  
Variants: DVC953, DVC1903, DVC2503,  
DVCH1503 and DVCH3003  
Protocols: CAN2.0A / J1939
- ✓ 1x ServiceTool OCT  
PC tool for updating  
firmware / device parameters  
Documentation
- ✓ 1x Accessories-SET  
USB cable: USB-A male / USB-B mini  
male, length 1.5 m  
DVCx3 CAN data cable: 9-PIN Sub-D  
und M12 (plug / socket), length 3 m  
DVCHx3 CAN data cable: 9-PIN Sub-D  
(socket) / AMPSEAL 14-PIN, length 2 m

## Application specific cooling systems



Heat sink lengthwise

- ✓ Heat sink incl. mounting plate and  
fixing material for mounting  
on DVCHx3 units
- ✓ Heat sink lengthwise
- ✓ Heat sink crosswise
- ✓ For DVCx3 units  
Heat sink crosswise

Further information to the accessories **Transportation**  
can be found on our homepage:

[www.deutronic.com](http://www.deutronic.com)



# Logistics



**Deutronic Logistics** keeps your conveyor belts and industrial trucks running. We also offer power supplies for switch cabinet use (19" or DIN rail).

## We keep you running!

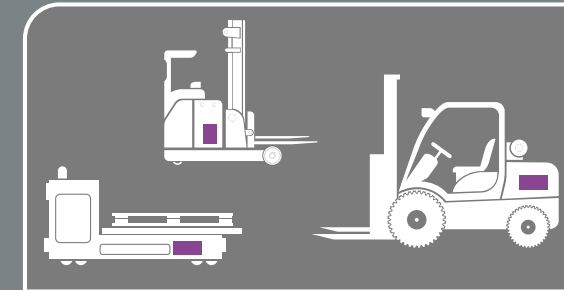
Automated intralogistical system cannot afford standing times. Our robust industry power supplies provide highest reliability even under harshest operating conditions. We provide the fitting solution for your system.

The latest generation of our DC/DC converters for e-mobility – also in fuel cell applications – enables a high power density and current carrying capacity with a very flat design using planar components.

All converters and industry-grade power supplies are very robust and perfectly protected against rough environmental influences like vibration, shock, high temperature differences, humidity and aggressive atmosphere.

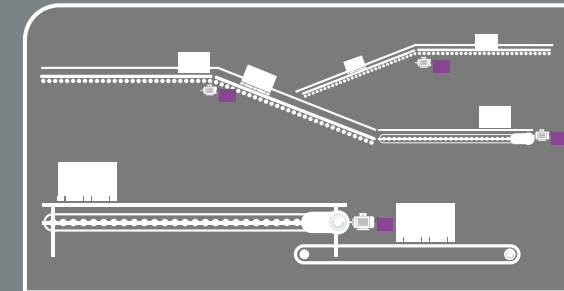
Due to our in-house production, customer-specific changes are possible even for small series.

Our controllable power supplies for DIN rail or 19" installation complete our product portfolio.



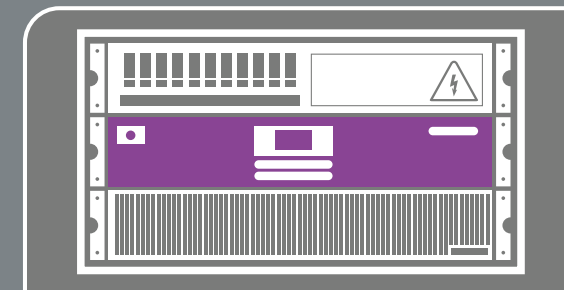
## Industrial vehicles

For all types of industrial vehicles – including electro vehicles – we provide the fitting DC/DC converter.



## Intralogistics

Automated intralogistic plants cannot afford off-times. Our robust industry power supplies provide 100 % reliability even under the harshest environmental conditions.



## Switch cabinet and DIN rail

We provide suitable power supplies for rack mounting and DIN rail.



The latest generation of DC/DC converters for electromobility – also in fuel cell applications – enables a high power density and current carrying capacity with a very flat design using planar components.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DVC153-24/36-12	36VDC	12,5VDC	12A	105173/x/000*
DVC153-48-12	48VDC	12,5VDC	12A	105174/x/000*
DVC153-80-12	80VDC	12,5VDC	12A	105175/x/000*
DVC153-80-13,8	80VDC	13,8VDC	11A	105169/x/000*
DVC453-24/36-24	24–36VDC	24,3VDC	18,5A	105176/0/000*
DVC453-48/80-24	48–80VDC	24,3VDC	18,5A	105177/0/000*
DVC853-48/80-13,8	48–80VDC	13,8VDC	70A Boost 160A (t<=4s)	105214/x/000*
DVC953-48/80-13,8-CAN	48–80VDC	13,8VDC	80A	105167/x/yyy*
DVC1903-24/48-24-CAN	24–48VDC	2–30VDC	80A	105187/x/yyy*
DVC1903-48/80-24	48–80VDC	24,3VDC	70A Boost 160A (t<=4s)	105216/0/000*
DVC1903-48/80-24-CAN	48–80VDC	2–30VDC	80A	105217x/yyy*
DVC2503-96-24-CAN	96VDC	24,3VDC	100A	105220/x/yyy*

\* Order option:

.../x/...: Accessory variant  
.../0/... without accessory  
.../20/... with heatsink  
More on request

.../yyy: Setting (Standard setting or customized)  
.../000 DC-Standard CAN 2.0A  
.../001 DC-Standard CAN J1939  
Customer-specific parameterization on request

DVC153/DVC453



- ✓ Wide range input
- ✓ Short-circuit, no load and over temperature protection
- ✓ IP-protection class IP65
- ✓ Parallel connectable
- ✓ Particularly flat and compact design

DVC953



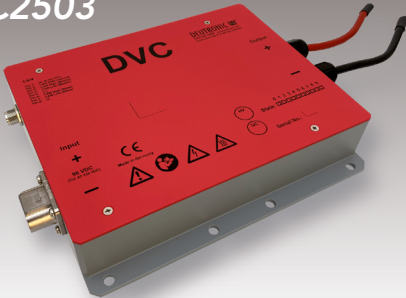
- ✓ Galvanical isolated switching regulator
- ✓ Power range up to 1280W
- ✓ High efficiency – up to – typ. 93%
- ✓ Short-circuit, no load and over temperature protection
- ✓ IP-protection class IP67

DVC853/1903



- ✓ Wide range input
- ✓ Short-circuit, no load and over temperature protection
- ✓ IP-protection class IP54
- ✓ Parallel connectable
- ✓ Particularly flat and compact design

DVC2503



- ✓ Power adaptation possible through modularity in 2.5 kW steps (up to 7.5 kW)
- ✓ Improved handling through master-slave control
- ✓ Coverage of a wide range of applications due to the large input voltage range
- ✓ Desired parameterization via CAN interface (CAN2.0A, J1939)

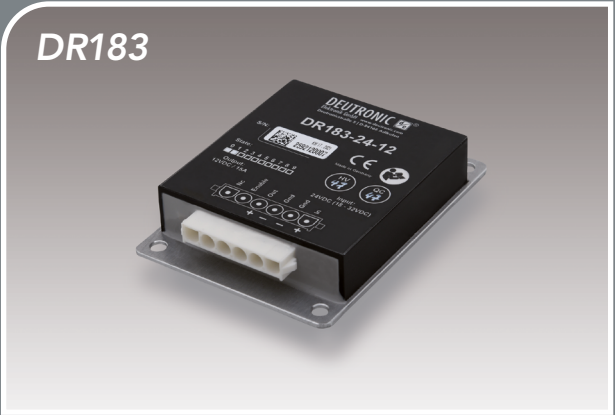




The latest generation of galvanically not isolated DC/DC converters enables a high power density and current carrying capacity with a very flat design using planar components.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DR183-24-12	24VDC	12,3VDC	15A	on request



- ✓ Regulated output
- ✓ Extremely small and robust
- ✓ Typical efficiency of 96 %
- ✓ Switchable output
- ✓ Customized changes possible





The encapsulated form of our DVC standard vehicle converters allows the operation in harsh environments such as in logistics, industrial trucks, railway applications or e-mobility.

With the possibility of customer specific adaptations including the inhibit function and various certifications (E1-ECE or similar) the scope of application has a wide range.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DVC75-24-5	24VDC	5VDC	8A	105100
DVC75-24-12	24VDC	12,5VDC	4A	105101
DVC75-24-20	24VDC	20VDC	2,5A	105103
DVC75-24-24	24VDC	24,5VDC	2A	105102
DVC75-36-12	36VDC	12,5VDC	5A	105051
DVC75-36-24	36VDC	24,5VDC	2,8A	105053
DVC75-48-12	48VDC	12,5VDC	6A	105083
DVC75-48-15	48VDC	15VDC	5A	105049
DVC75-48-24	48VDC	24,5VDC	3,2A	105092
DVC75-80-12	80VDC	12,5VDC	6A	105085
DVC75-80-24	80VDC	24,5VDC	3,2A	105093
DVC75-80-24/RA	80VDC	24,5VDC	3,2A	105048
DVC75-80-24/RA	80VDC	24,5VDC	3,2A	105048/2
DVC125-24-12	24VDC	12,5VDC	8A	105078
DVC125-24-15	24VDC	15VDC	6,5A	105071
DVC125-24-24	24VDC	24VDC	5A	105079
DVC125-36-24	36VDC	24VDC	5,5A	105107
DVC125-48-12	48VDC	12,5VDC	10A	105086
DVC125-48-20	48VDC	20VDC	5,5A	105104
DVC125-48-24	48VDC	24VDC	5,5A	105080
DVC125-80-12	72/80/96/110VDC	12,5VDC	10A	105087
DVC125-80-24	72/80/96/110VDC	24VDC	5,5A	105082



- ✓ DC/DC wide range input
- ✓ Filtered against vehicle on-board disturbances
- ✓ Galvanically isolated
- ✓ Regulated output, very high efficiency
- ✓ Short-circuit / No-load protection



- ✓ Protection against unfavourable environmental conditions
- ✓ Filtered against vehicle on-board disturbances
- ✓ Regulated output, very high efficiency
- ✓ Over temperature protection
- ✓ Parallel connectable
- ✓ Galvanically isolated





Technical data

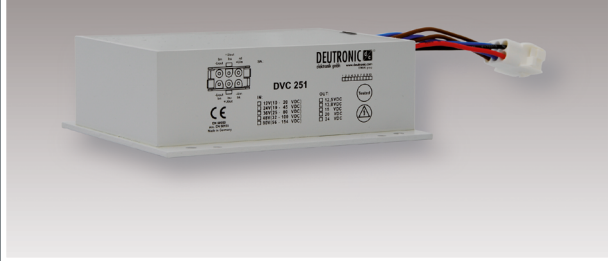
Type	Input voltage	Output voltage	Max. output current	Art.-No.
DVC150-48-12	48VDC	12,5VDC	12A	105088
DVC150-48-24	48VDC	24VDC	6,5A	105089
DVC150-80-12	72/80/96/110VDC	12,5VDC	12A	105090
DVC150-80-24	72/80/96/110VDC	24VDC	6,5A	105091
DVC251-12-12	12VDC	12,5VDC	11A	105120
DVC251-12-24	12VDC	24VDC	7A	105121
DVC251-24-12	24VDC	12,5VDC	18A	105122
DVC251-24-27,6	24VDC	27,6VDC	8,2A	105141
DVC251-48-12	48VDC	12,5VDC	20A	105124
DVC251-80-12	72/80/96/110VDC	12,5VDC	20A	105126
DVC251-80-13,8	72/80/96/110VDC	13,8VDC	18A	105130
DVC251-80-24	72/80/96/110VDC	24VDC	10,5A	105127
DVC251-24-12-LED	24VDC	12,5VDC	18A	105122/1
DVC251-EUT-12-24	12VDC	24VDC	10,5A	105131
DVC301-24-12	24VDC	12VDC	22A	105604
DVC301-24-24	24VDC	24VDC	12,5A	105601
DVC301-48-24	48VDC	24VDC	12,5A	105600
DVC301-80-24	80VDC	24VDC	12,5A	105602
DVC301-EUT-24-24	24VDC	24VDC	12,5A	105603
DVC500-36-24	36VDC	24,3VDC	21A	105119
DVC500-48-12	48VDC	12,5VDC	40A	105114
DVC500-48-13,8	48VDC	13,8VDC	36A	105112
DVC500-48-13,8/ITO12	48VDC	13,8VDC	36A	105112/1
DVC500-48-24	48VDC	24,3VDC	21A	105115
DVC500-80-12	72/80/96/110VDC	12,5VDC	40A	105116
DVC500-80-13,8	72/80/96/110VDC	13,8VDC	36A	105109
DVC500-80-24	72/80/96/110VDC	24,3VDC	21A	105117

DVC150



- ✓ Protection against unfavourable environmental conditions
- ✓ Filtered against vehicle on-board disturbances
- ✓ Regulated output, very high efficiency
- ✓ Over temperature protection
- ✓ Parallel connectable

DVC251



- ✓ DC/DC wide range input
- ✓ Filtered against vehicle on-board disturbances
- ✓ Galvanic separation 1,5kV (500V at 12/24VDC input voltage)
- ✓ Regulated output, very high efficiency
- ✓ Over temperature protection

DVC301



- ✓ Ideal for applications such as logistics, industrial trucks, railroad applications or electric vehicles
- ✓ Highest safety due to IP67 degree of protection according to EN 60529
- ✓ DC/DC wide range input
- ✓ Galvanic separation 1,5kV (500V at 12/24VDC input voltage)

DVC500



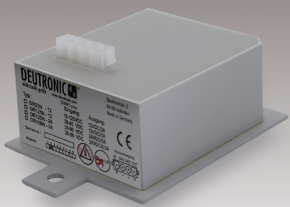
- ✓ DC/DC wide range input
- ✓ Short-circuit / No-load protection
- ✓ Regulated output, very high efficiency
- ✓ Over temperature protection
- ✓ Parallel connectable (Option: Smart output characteristic)



Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DR25N-12	24–96VDC	12VDC	2A	106062
DR25N-12/FE	24–96VDC	12VDC	2A	106073
DR100N-12	24–48VDC	12VDC	8A	106065
DR100N-12/FE	24–48VDC	12VDC	8A	106071
DR100N-13,8	24–48VDC	13,8VDC	7A	on request
DR100N-13,8/FE	24–48VDC	13,8VDC	7A	on request
DR125N-12	48–80VDC	12VDC	5A	106059
DR125N-24	48–80VDC	24VDC	5A	106060
DR150N-24	48–80VDC	24VDC	6,5A	106063
DR160-24-12	80VDC	12 / 24VDC	3A / 5,2A	104970
DR350-12	24–48VDC	12VDC	25A	106066
DR350-24/48-13,5	24–48VDC	13,5VDC	23A	106070
DR350-24	48–80VDC	24VDC	15A	106067
DR350-24	48–80VDC	24VDC	15A	106078
DR553-48-24	33–63VDC	24,3VDC	22A	106042

DR25N/100N/125N/150N



- ✓ DC/DC wide range input
- ✓ Input filtered against interference from thyristor vehicle drives
- ✓ Solid construction
- ✓ Parallel connectable without control lead
- ✓ Efficiency up to 95 %

DR160



- ✓ Solid construction
- ✓ Over temperature protection
- ✓ Regulated output
- ✓ LED Display
- ✓ DC/DC wide range input

DR350



- ✓ Regulated output
- ✓ Input filter versus disturbances of thyristors drives
- ✓ Parallel connectable without control lead
- ✓ DC/DC wide range input
- ✓ Efficiency up to 96 %

DR553



- ✓ Isolation switch as protection measure
- ✓ Parallel connectable without control line
- ✓ Typical efficiency of 96 %
- ✓ Short-circuit / No-load protection, over temperature protection
- ✓ Not galvanically isolated



The power supplies of the DP500IP series meet the increased requirements in industry and logistics and are designed for use in harsh environments.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
DP500IP-12	100–240VAC	12VDC	40A	109518
DP500IP-13,8	100–240VAC	13,8VDC	35A	109517
DP500IP-24	100–240VAC	24VDC	20A	109515
DP500IP/3-24	3AC 380–500VAC	24VDC	20A	109514

DP500IP 1AC



- ✓ Vibration-proof design, especially for rough environments
- ✓ Potted, compact design
- ✓ No inrush current
- ✓ Very low stand-by-power
- ✓ Extensive protection for power output: Short circuit, no-load, overvoltage, overtemperature, energetic recovery

DP500IP 3AC





The D-IPS501C and D-IPS1001C replace our tried and tested D-IPS500C and D-IPS1000C. This means that we can continue to offer our customers reliable DIN rail power supplies with an output voltage of 0...30V for demanding applications that require precise control.

The precisely controllable power supplies of Deutronic Elektronik GmbH are also suitable for new designs. The robust design, thanks to analog circuits and fast settling times, makes the power supply the first choice for system and test equipment construction as well as test systems.

Technical data

Type	Input voltage	Output voltage	Max. output current	Art.-No.
D-IPS501C-24	115/230VAC	0–30VDC	0–24A	101120
D-IPS1001C-24	115/230VAC	0–30VDC	0–42A	101121

D-IPS501C



D-IPS1001C



- ✓ For control cabinet installation (TS35 rail according to EN60715)
- ✓ Electrical safety: EN61010-1 / -2-201, EN62368-1, EN60204-1
- ✓ EMV: EN55032, EN61000-6-2, EN61000-6-3
- ✓ Wide range input 115VAC/230VAC (90–264VAC)
- ✓ Programmable laboratory power supply  $U=0-V_{max}$
- ✓ Multifunctional analog interface 0–10V/0–20mA







**Deutronic Test & Automation**  
Customized test and inspection systems according to your specifications

**Test us!**

Deutronic test systems combine individual, modular component assembly with the flexibility of our software solution DTS which can be used for all purposes. The result of this symbiosis are application-specifically designed test systems.

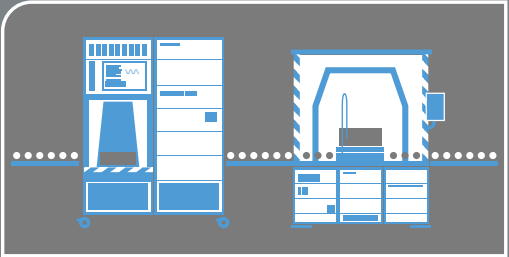
Part of the basic frame for the overall concept are determined by the type of the product to be tested as well as the degree of automation. This process ensures the electrical and physical safety and function of the

products according to norms and requirements.

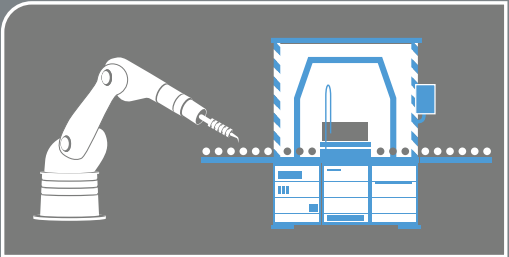
Deutronic test systems can be designed for any possible purpose thanks to their individual, modular setup.

Test systems for testing electric motors, transformers, power supplies, batteries, fuses, switches, plugs, sensors, lights and lamps, lines and cables, white goods, entertainment electronics, train couplings, mechanical relays, semi-conductor relays, magnetic valves, medical devices, etc.

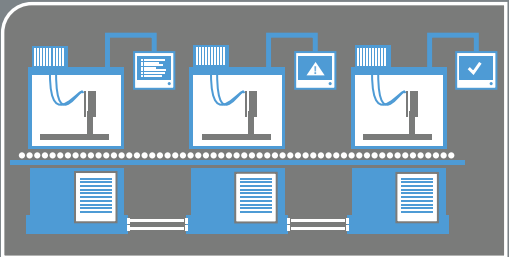
**Test & Automation**



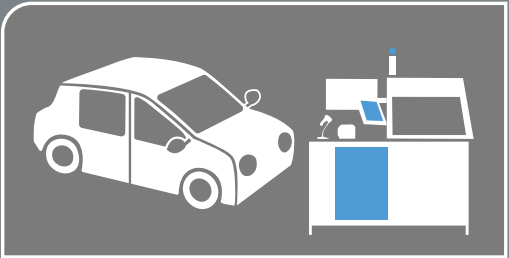
*Manual testing*



*Semi-automatic testing*

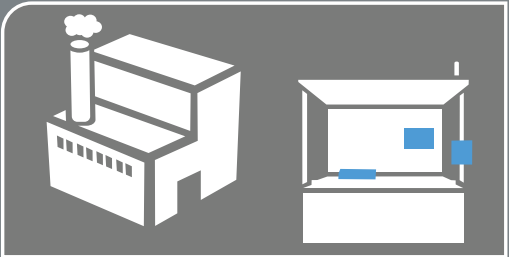


*Automatic testing*



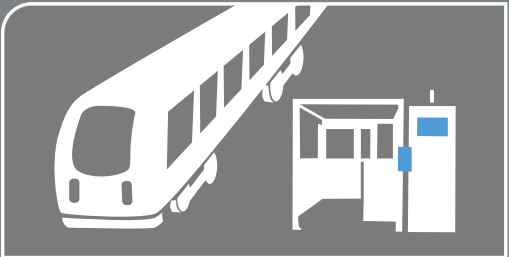
**For automotive**

e.g. for electro motors, stators and rotors, batteries



**For industry**

e.g. for fuses, switches, connectors, sensors, lights, cables and wires, home electronics, entertainment electronics, medical devices, transformers, power supplies

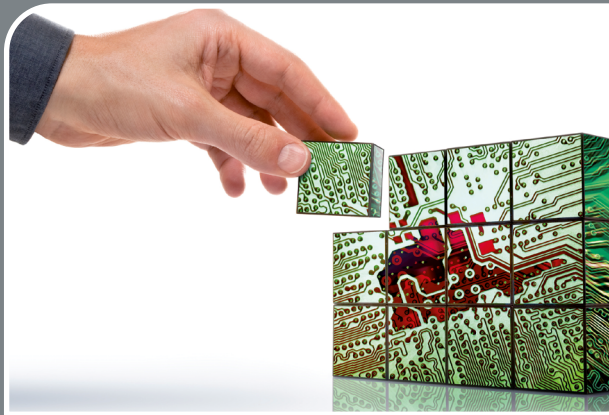


**For railway applications**

e.g. for rail couplings, mechanical relays, semiconductor relays, magnetic valves



## General information



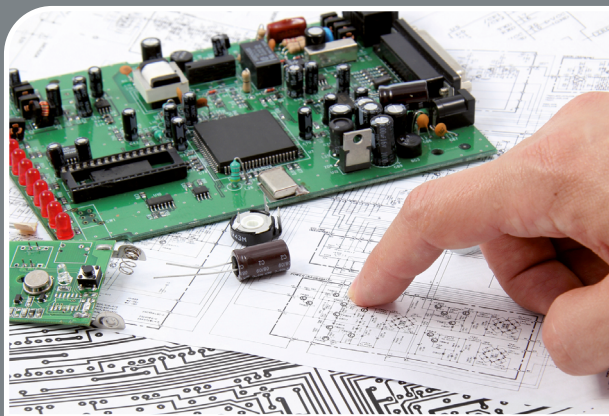
Individual configuration with test equipment from leading suppliers. Retrofits and modernization are possible.

- ✓ Maximum flexibility
- ✓ Reliable components
- ✓ Tested quality
- ✓ Highest reliability and accuracy



Highly flexible and easy to use Deutronic DTS test software

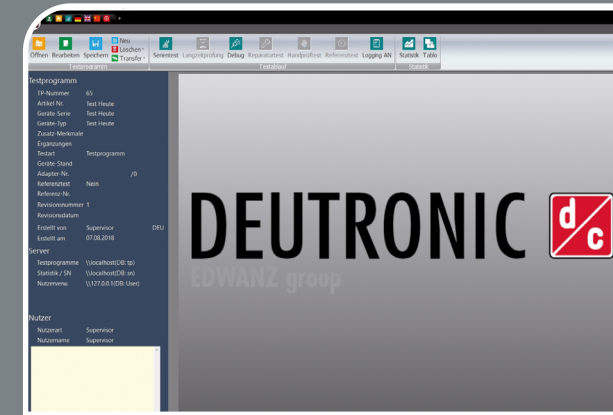
- ✓ Can be used without programming skills
- ✓ High system stability
- ✓ Windows® interface
- ✓ Freely programmable
- ✓ Extensive test spectrum



Customized test and measurement systems

- ✓ Especially for the use in R&D area
- ✓ Semi-automated
- ✓ Automated
- ✓ Maximum flexibility and variability
- ✓ Fully network-capable
- ✓ Safe, fast and reliable
- ✓ Optimized test times for maximum efficiency
- ✓ Cost-efficient retrofitting possible

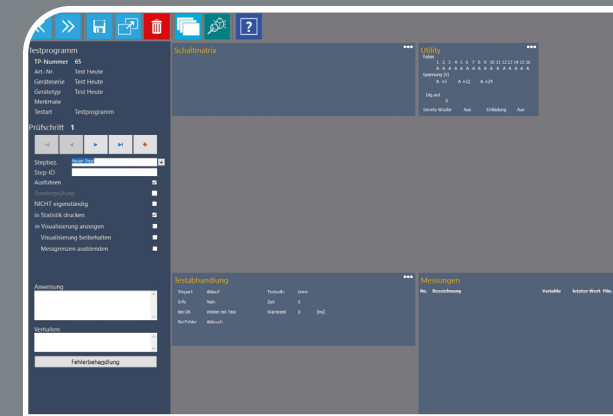
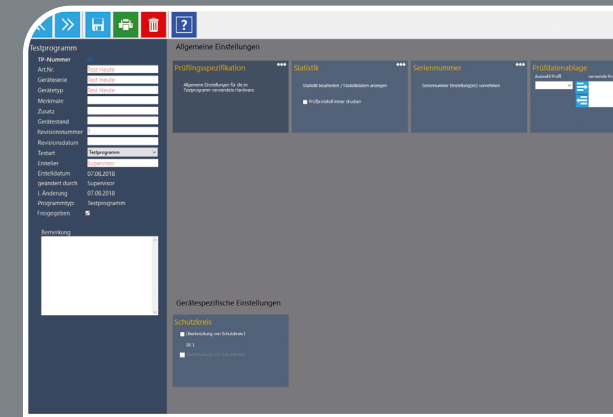
## Test software DTS



The Deutronic DTS test software is designed for a maximum range of applications and works as Windows® desktop application. It can be easily connected to an existing data transfer network.

The documentation and archiving of relevant measurement data is realized in a modern SQL database.

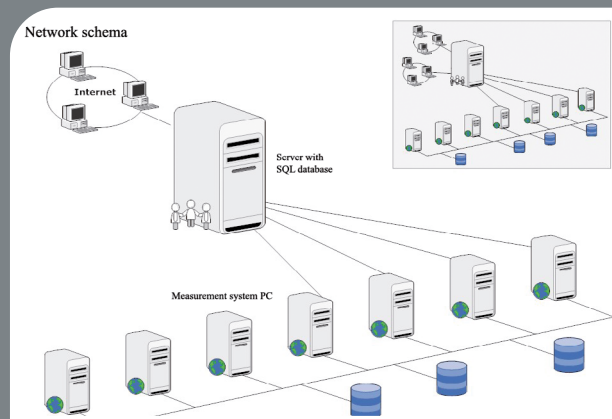
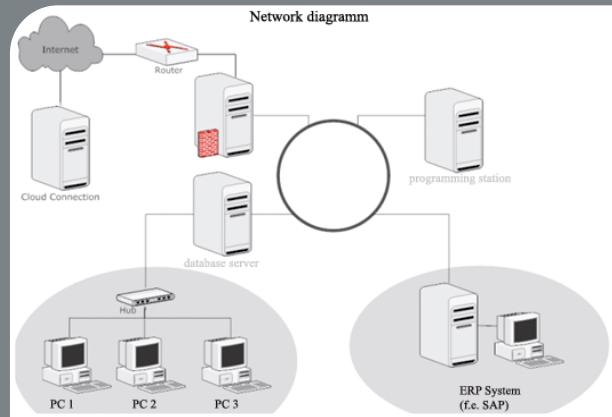
- ✓ Can be used without programming skills
- ✓ The test system SQL database can be integrated in the company network, data transfer via SPS or directly to a control system via industry-approved bus systems (e.g. Profinet)
- ✓ Connection to ERP systems possible
- ✓ Flexible test program creation
- ✓ Remote diagnostics and maintenance
- ✓ Presentation and management of images, graphics, instructions and other technical documents
- ✓ Complex calculations possible via MATLAB®







## Networking software DTS

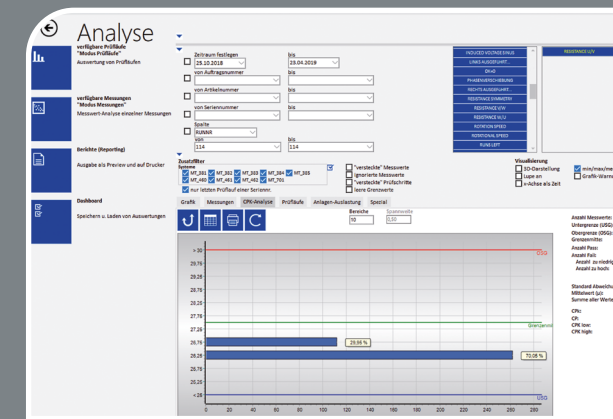
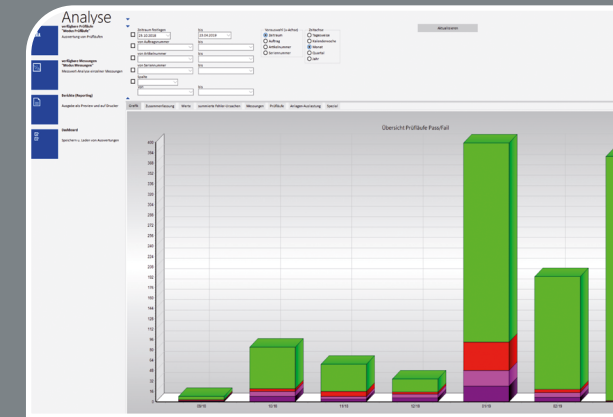


- ✓ The test system database can be integrated into the company-internal network
- ✓ If several test systems are networked, the computer of one test system can manage and provide test programmes as well as technical documentation centrally as server
- ✓ Further PCs can be integrated as programming stations
- ✓ Connection to several control systems possible
- ✓ Data transmission via PLC or directly to control system via industrial bus systems (e.g. Profinet)

## Statistics software DTS-Tablo

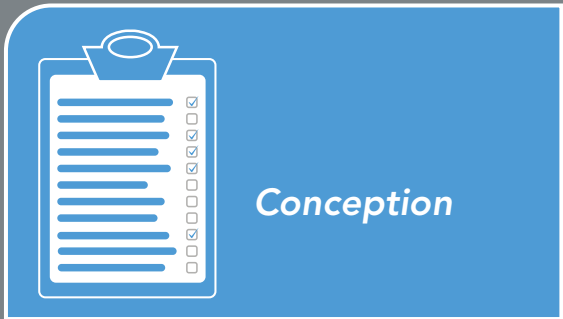
The Deutronic DTS-Tablo statistics software enables a survey of the manufacturing quality and uncovers improvement potentials. It is designed for statistical test and measurement analysis and evaluation.

- ✓ Analysis using statistical methods in real time or in retrospect
- ✓ Determination of the current process capability index as well as the process potential during ongoing tests
- ✓ Allows immediate reaction to process changes
- ✓ Extensive selection possibilities such as time frames, order and article numbers, up to three filter levels
- ✓ Graphical and logged measured data analysis (e.g. PASS/FAIL)
- ✓ Integrated Cpk-Analysis
- ✓ Flexible detail filters via SQL wizard





With respect to service, Deutronic test systems also convince with an outstanding value proposition. Deutronic offers their customer comprehensive and competent service for all steps, starting from the first conceptual design to the test system modernisation.



As a solution provider, our experts develop a concept based on the technical specifications of the test object and the overall requirements.



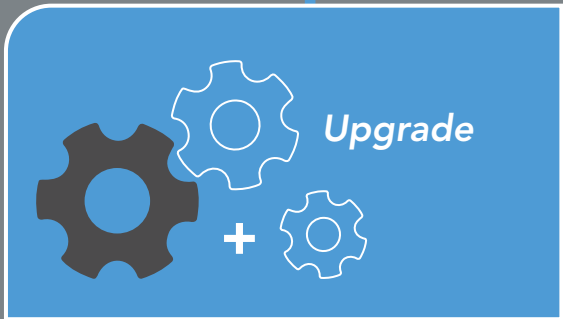
Within the scope of the project management (compliant to the guidelines for machine-building), especially lies the on-schedule realization, an accurate risk evaluation and MCA (machine capability analysis). In this step the modular design and the test software are subsequently combined to a custom-made test and measurement system.



To meet highest quality demands, user training as well as excellent support are provided in addition to several acceptances.



Within the scope of a maintenance agreement, Deutronic assures the entire test system maintenance. Calibration can also be performed upon request.



A new product generation often also includes changing test sequence requirements. Together with the flexible test software, the modular design allows a cost-efficient test system adjustment to changed requirements.





### Test system for electric motors

Modern test concepts for various electro mobility components do not only require a deep understanding of the drive technology but also a high degree of automation to optimize the cycle time in a series production. Because of the high specimen performance, the mechanical setup requires a suitable construction. The focus of this EOL test station is on the fully automated test sequence which also includes the mechanical and electrical contacting. Flexible production uses are possible because of the fast and uncomplicated change of the contacting unit.

The test sequence is defined and loaded by the recorded barcode on the work piece carrier. The collection and permanent storage of test data ensures the unrestricted reproducibility of measured values, even across systems.



#### Scope of testing

- ✓ Resistance measurement of winding resistances, temperature sensors, isolation resistance of winding, contact resistance of the shield connections
- ✓ HV test
- ✓ Determination of the Resolver-Offset Angle
- ✓ Residual magnetism at the shaft end of the rotor
- ✓ Idling values of motor
- ✓ Determination of the non-linearity of the resolver
- ✓ Electro-magnetic force (EMF)
- ✓ Total Harmonic Distortion (THD)
- ✓ Speed ripple of the motor rotation speed
- ✓ Measurement of the structure-borne sound
- ✓ Determination of the friction loss
- ✓ Etc.

### Test system for rotors

An example of a fully automated test and measurement system for rotors as part of a production line for electro motors. The flexible specimen mounting, that enables the contacting of all required specimens without changing the test station, is integrated in the system.

Patented, fully automated contacting. High-precision partial discharge test in an appropriate frequency band. Surge test. Connectivity to the customer system.



#### Scope of testing

- ✓ Winding inductance and resistance with spread width
- ✓ Capacity and loss factor with spread width
- ✓ Dielectric strength/impulse voltage with comparison
- ✓ Impulse-partial discharge
- ✓ Weighing (before and after impregnation)



## Laboratory testing station for stators

The flexible test system allows a quick and simple functional test of hairpin or wounded stators for electro machines in the prototype manufacturing, production and repair.

Manual operation for the laboratory. Flexible and dynamic test runs. Customizable measurement equipment.



### Scope of testing

- ✓ Winding resistance with temperature compensation
- ✓ Winding resistance with spread width
- ✓ Capacity and loss factor
- ✓ Test of the dielectric strength
- ✓ Impulse voltages in comparison
- ✓ Partial discharge
- ✓ Weight

## Drum motor test system

Drum motors must withstand highest electrical and physical loads. This requires thorough quality control at end of production.

The shown test system was designed as standing workstation with handling system based on a linear transfer system. A touch panel installed on the side is used for operation. A ball table integrated into the test system enables loading of test objects of different weight and size. For this requirement, the product-specific work piece carriers were divided into two pieces to omit test object transfer.

The actual test chamber is shielded with a light curtain of safety category 4. The mechanical handling systems realised using compressed air is inside the chamber.



### Scope of testing

- ✓ Resistance test of motor windings
- ✓ Determination of current / voltage / power
- ✓ Resolver curve calculations
- ✓ Structure-borne noise test
- ✓ Function test of motor, brake, non-return device, rotary encoder



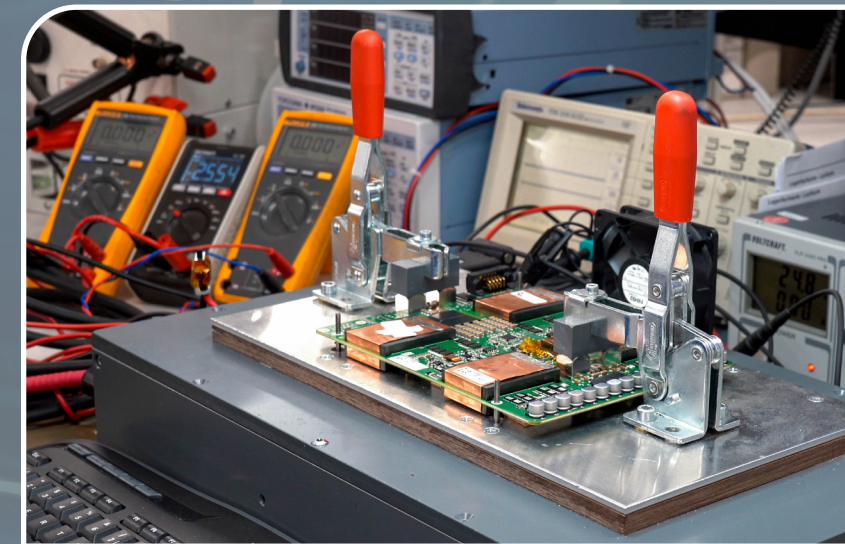


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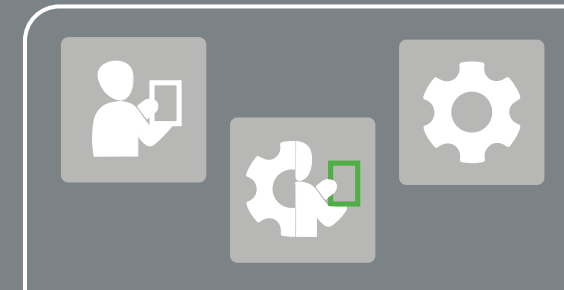
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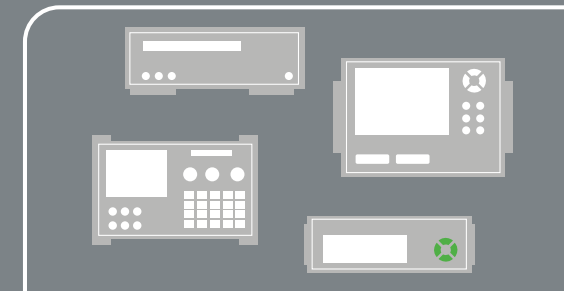
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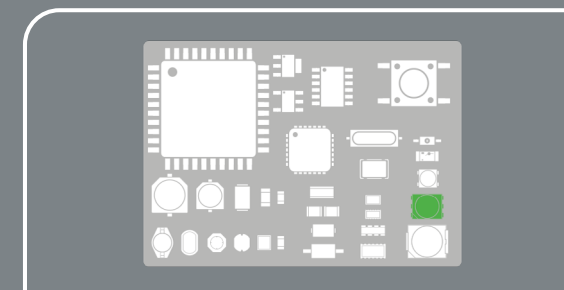




*R&D / construction*



*Mechanical / mechatronic complete system*



*SMD production*

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## **Applications:**

*R&D / construction, mechanical / mechatronic complete system, SMD production*



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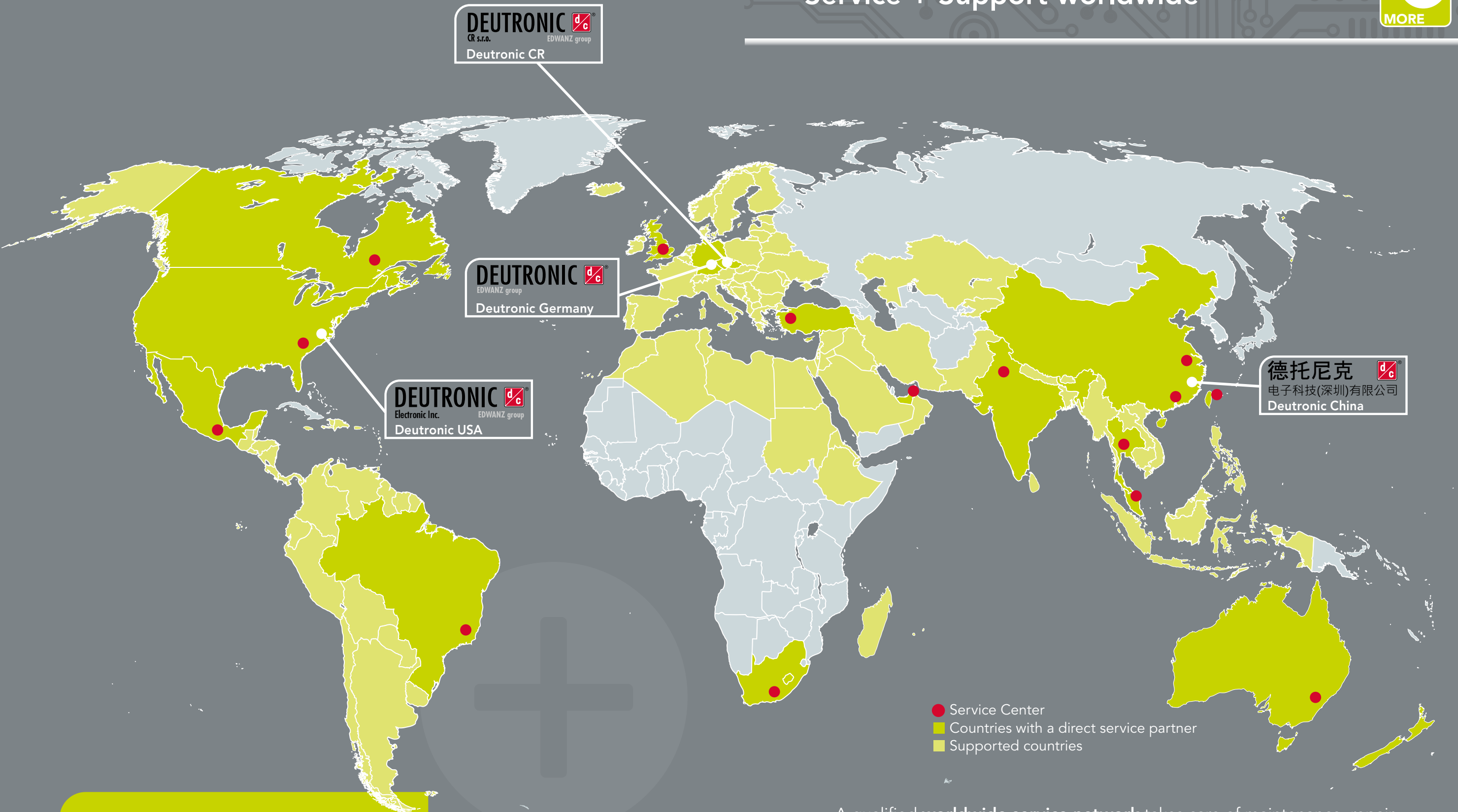
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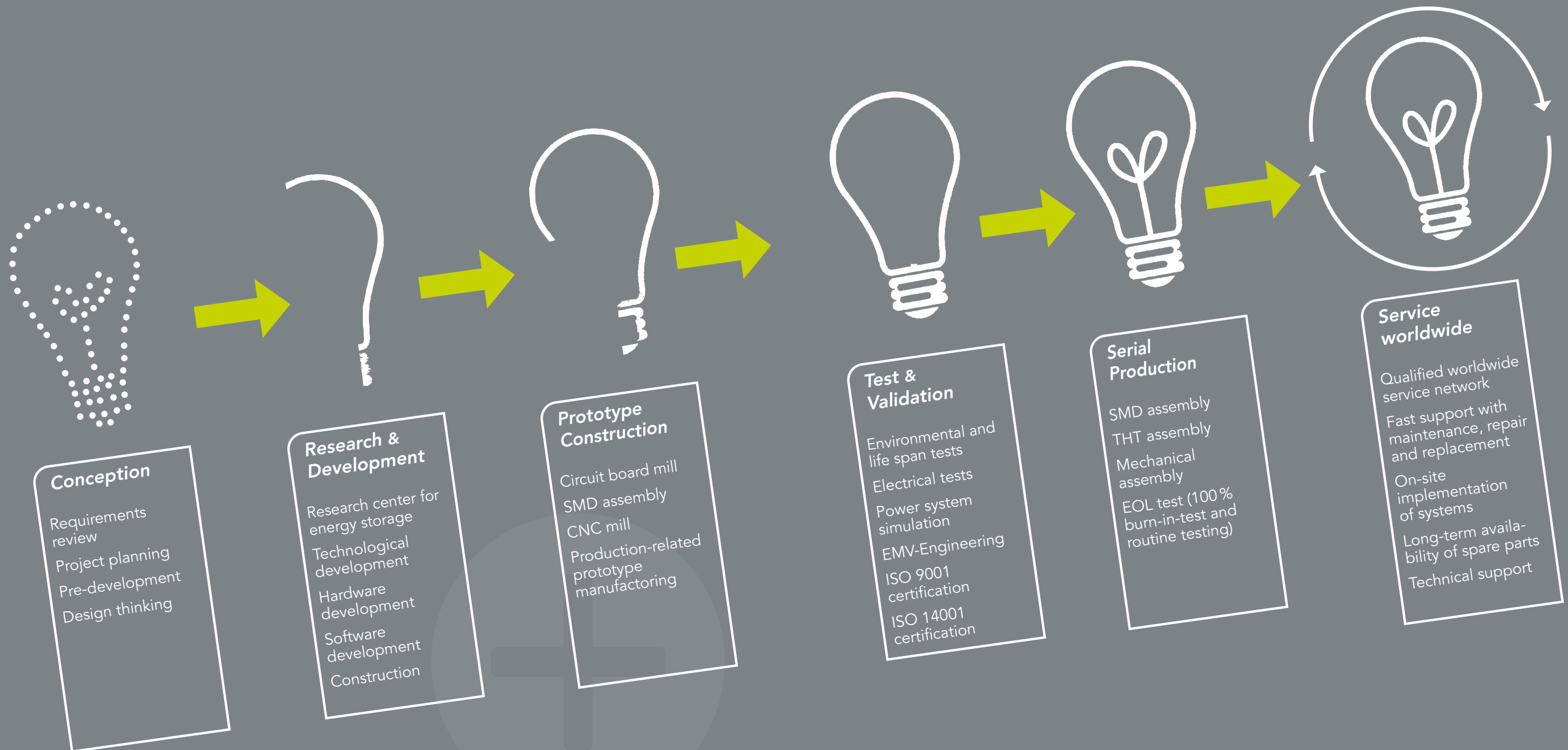
Flexible development and production capacities due to the business group of the **EDWANZ group**.



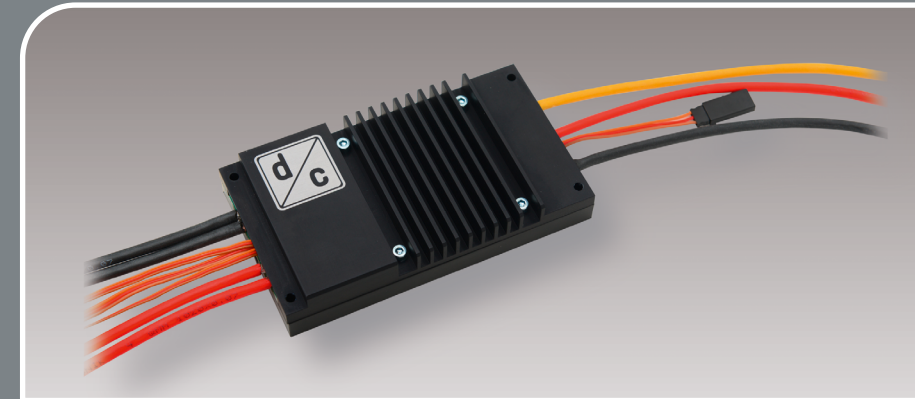


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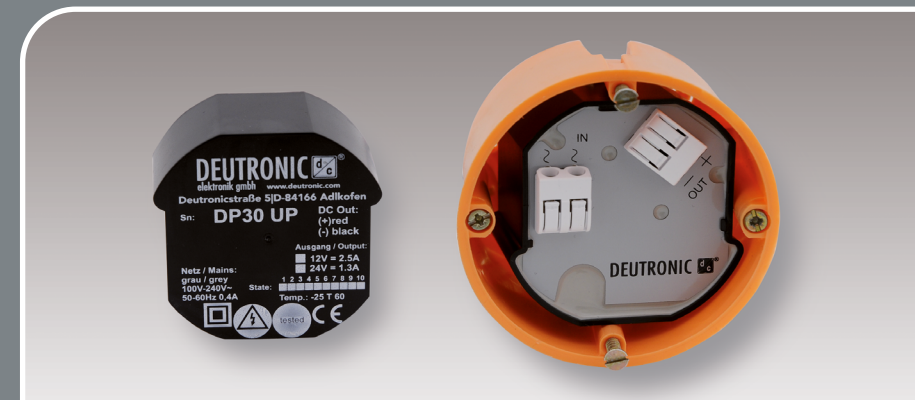
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